



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Zhongxin Ge et al.

Application No.: 10/594,429

Filing Date: September 26, 2006

Title: POLYHYDROXY
HYDROGENSULFATED
TRIMETALLIC NITRIDE
ENDOHEDRAL
METALLOFULLERENES

) Group Art Unit: Unassigned
)
) Examiner: Unassigned
)
) Confirmation No.: Unassigned
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SECOND
INFORMATION DISCLOSURE STATEMENT
TRANSMITTAL LETTER

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Enclosed is a SECOND Information Disclosure Statement (IDS) and accompanying form PTO-1449 for the above-identified patent application.

- ☒ No additional fee for submission of an IDS is required.
- ☐ The fee of 180 as set forth in 37 C.F.R. § 1.17(p) is also enclosed.
- ☐ A statement under 37 C.F.R. § 1.97(e) is also enclosed.
- ☐ A statement under 37 C.F.R. § 1.97(e), and the fee of 180 as set forth in 37 C.F.R. § 1.17(p) are also enclosed.
- ☐ Charge _____ to Deposit Account No. 02-4800 for the fee due.
- ☐ A check in the amount of _____ is enclosed for the fee due.
- ☐ Charge _____ to credit card for the fee due. Form PTO-2038 is attached.
- ☒ The Director is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17 and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800. This paper is submitted in duplicate.

Respectfully submitted,

BUCHANAN INGERSOLL AND ROONEY PC

Date April 9, 2007

By: 

Christopher L. North
Registration No. 50,433

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Buchanan Ingersoll & Rooney PC
Attorneys & Government Relations Professionals

8. ZETTL et al., U.S. Patent No. 6,063,243, issued on May 16, 2000.
9. CRESPI et al., U.S. Patent Publication No. 2005/0067349 A1, published on March 31, 2005.
10. HINOKUMA et al., U.S. Patent No. 6,495,290, issued on December 17, 2002.

NON-PATENT LITERATURE DOCUMENTS

1. IEZZI, ERICK B. ET AL., "A Symmetric Derivative of the Trimetallic Nitride Endohedral Metallofullerene, $\text{Sc}_3\text{N@C}_{80}$," J.AM.CHEM.SOC., 2002, pp. 524-525, Vol. 124, No. 4, American Chemical Society.
2. KRATSCHMER, W. ET AL., "Solid C_{60} : a new form of carbon," NATURE, 9/27/90, pp. 354-358, Vol. 347, Nature Publishing Group.
3. OLMSTEAD, MARILYN M. ET AL., "Isolation and Crystallographic Characterization of $\text{ErSc}_2\text{N@C}_{80}$: an Endohedral Fullerene Which Crystallizes with Remarkable Internal Order," J.AM.CHEM.SOC., 2000, pp. 12220-12226, Vol. 122, No. 49, American Chemical Society.
4. STONE, A.J. ET AL., "Theoretical Studies of Icosahedral C_{60} and Some Related Species," Chem. Physics Ltrs., 8/8/86, pp. 501-503, Vol. 128, No. 5,6, Elsevier Science Publishers B.V.
5. TRULOVE, "Filled buckyballs - diamonds from soot," article from website <http://www.research.vt.edu/resmag/2002winter/buckyballs.html>, 9 March 2002 (09.03.2002), available at www.archive.org. (entire document).
6. NAGASE et al., Chapter 9: Endohedral metallofullerenes: theory, electrochemistry, and chemical reactions, of Fullerenes: Chemistry, Physics and Technology (Kadish and Ruoff, eds.), 2000, John Wiley and Sons, pp. 395-429.
7. JOURNET et al., "Large-scale production of single-walled carbon nanotubes by the electric-arc technique," *Nature*, 1997, vol. 388, pp. 756-758, American Association for the Advancement of Science, Washington, D.C.
8. SAITO et al., "Single-Layered Carbon Nanotubes Synthesized by Catalytic Assistance of Rare-Earths in a Carbon Arc," *J. Phys. Chem.*, 1995, vol. 99, pp. 16076-16079, American Chemical Society, Washington, D.C.
9. WILSON et al., "Advanced materials: fluoruous fullerenes and nanotubes," *Tetrahedron*, 2002, vol. 58, pp. 4041-4047, Elsevier Science Ltd.

The documents are being submitted within three (3) months of the filing or entry of the national stage of this application or before the first Office Action on the merits, whichever

is later. Since these documents are being filed within the time period set forth in 37 C.F.R. § 1.97(b), no fee or statement is required.

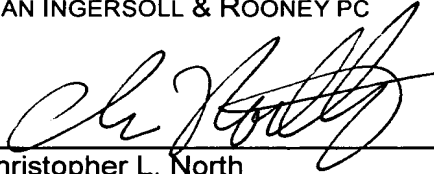
To assist the Examiner, the documents are listed on the attached form PTO-1449. It is respectfully requested that an Examiner initialed copy of this form be returned to the undersigned.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

Date: April 9, 2007

By:


Christopher L. North
Registration No. 50,433

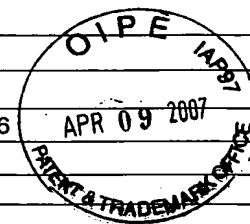
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SECOND **INFORMATION DISCLOSURE** **STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 1 of 2

Application Number	10/594,429
Filing Date	September 26, 2006
First Named Inventor	GE et al.
Examiner Name	Unassigned
Attorney Docket No.	1034136-00040



U.S. PATENT DOCUMENTS

Examiner Initials	Document Number	Kind Code (if known)	Name of Patentee or Applicant of Cited Document	Issue/Publication Date (MM-DD-YYYY)
	2003/0031917	A1	Katori et al.	02-13-2003
	6,432,887	B1	Yamamoto et al.	08-13-2002
	5,269,953		Whewell	12-14-1993
	6,815,067	A	Ata et al.	11-09-2004
	2003/0015414	A1	Kajiura et al.	01-23-2003
	2002/0061638	A1	Takikawa et al.	05-23-2002
	2001/0050219	A1	Anazawa et al.	12-13-2001
	6,063,243		Zettl et al.	05-16-2000
	2005/0067349	A1	Crespi et al.	03-31-2005
	6,495,290	B1	Hinokuma et al.	12-17-2002

FOREIGN PATENT DOCUMENTS

Examiner Initials	Document Number	Kind Code (if known)	Country	Date of Publication (MM-DD-YYYY)	STATUS						
					Translation	Partial Translation	Eng. Lang. Summary	Search Report	IPER	Abstract	Cited in Spec

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	IEZZI, ERICK B. ET AL., "A Symmetric Derivative of the Trimetallic Nitride Endohedral Metallofullerene, Sc ₃ N@C ₈₀ ," J.AM.CHEM.SOC., 2002, pp. 524-525, Vol. 124, No. 4, American Chemical Society
	KRATSCHEMER, W. ET AL., "Solid C ₆₀ : a new form of carbon," NATURE, 9/27/90, pp. 354-358, Vol. 347, Nature Publishing Group
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	STONE, A.J. ET AL., "Theoretical Studies of Icosahedral C ₆₀ and Some Related Species," Chem. Physics Ltrs., 8/8/86, pp. 501-503, Vol. 128, No. 5,6, Elsevier Science Publishers B.V.
	TRULOVE, "Filled buckyballs - diamonds from soot," article from website http://www.research.vt.edu/resmag/2002winter/buckyballs.html , 9 March 2002 (09.03.2002), available at www.archive.org . (entire document).
	NAGASE et al., Chapter 9: Endohedral metallofullerenes: theory, electrochemistry, and chemical reactions, of Fullerenes: Chemistry, Physics and Technology (Kadish and Ruoff, eds.), 2000, John Wiley and Sons, pp. 395-429.
	JOURNET et al., "Large-scale production of single-walled carbon nanotubes by the electric-arc technique," Nature, 1997, vol. 388, pp. 756-758, American Association for the Advancement of Science, Washington, D.C.
	SAITO et al., "Single-Layered Carbon Nanotubes Synthesized by Catalytic Assistance of Rare-Earths in a Carbon Arc," J. Phys. Chem., 1995, vol. 99, pp. 16076-16079, American Chemical Society, Washington, D.C.

Examiner Signature	Date Considered
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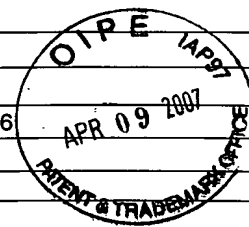
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**SECOND
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(use as many sheets as necessary)

Sheet 2 of 2

Application Number	10/594,429
Filing Date	September 26, 2006
First Named Inventor	GE et al.
Examiner Name	Unassigned
Attorney Docket No.	1034136-00040

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	WILSON et al., "Advanced materials: fluororous fullerenes and nanotubes," <i>Tetrahedron</i> , 2002, vol. 58, pp. 4041-4047, Elsevier Science Ltd.

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